# Minority and Female Ownership in Media Enterprises

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## 1 Introduction

## Overview of main findings & recommendations

This study examines the current state of minority ownership of media industries. Since these are high profile industries, responsible for the dissemination of information to a large fraction of the population, many people believe the federal government (and the Federal Communication Commission (FCC), in particular) should play an active role in ensuring equal access to these outlets. This study focuses on the Radio, TV and Newspapers markets (henceforth 'the three industries') in the United States (U.S.). The goal of our analysis is twofold. First, we examine the extent of female and minority ownership in these three industries using data provided by the Census Bureau and the FCC. In particular, we provide a direct comparison of these three industries with the broader universe of U.S. businesses, as well as the population at large. Second, we make a few recommendations regarding how the FCC should proceed in analyzing this important issue. We would like to emphasize that, due to the nature and quality of the available data, we are not able to reach strong conclusions, so our recommendations should be viewed more as points of discussion, rather than a prescription for policy.

#### Summary of data analysis

- First, using the most complete data source available (the 2002 Survey of Business Owners), we find that *minorities and females are clearly underrepresented* in the three industries relative to their proportion of the U.S. population.
- However, it should be noted that these patterns hold across the broad run of industries: females and minorities are underrepresented in almost all industries in the economy at relatively similar rates. These particular industries are not unique.
- While a full accounting of the causes of these systematic trends is beyond the scope of
  this analysis, it appears that access to capital is a primary cause of under-representation
  for minorities. Deeper analysis (with more data) would be needed to address the position of females.
- The data currently being collected by the FCC is extremely crude and subject to

a large enough degree of measurement error to render it essentially useless for any serious analysis.

#### Recommendations

- The FCC should take steps to improve their data collection process. Strong effort should be made to ensure a full, consistent and accurate reporting of ownership status and its composition. This should be a long run endeavour.
- Currently, the FCC simply flags as minority or female owned any firm with greater than 50% female or minority ownership. This information is maintained as a separate (and incomplete) spreadsheet that is not linked to the broad census of firms. Instead, information on minority and female ownership should be carefully tracked and integrated into the main firm database in a coherent fashion.
- In addition, firms should be classified not only by race and gender, but whether the company is publicly traded or privately owned. Efforts should also be made to track the demographics of minority as well as majority stakeholders.
- More broadly, the FCC should further examine the rationale behind this exercise. In particular we recommend revisiting the following points:
  - Before considering potentially costly regulations aimed at changing the ownership structure in these industries, the FCC should ask whether there are in fact quantifiable benefits to increasing minority and female ownership. How exactly will ownership policies affect change?
  - Recent evidence (e.g. Gentzkow & Shapiro, 2006) suggests that media content is driven more by demand (i.e. consumer preferences) than supply (i.e. owner preferences). If this is the case, how will change of ownership affect content?
  - What constitutes ownership? The debate thus far has focused on privately owned companies and, within that category, on only the majority stakeholder. Does fair representation require a controlling interest? If not, shouldn't we be tracking ownership patterns below the 50% cutoff? Isn't it the overall composition of the firm that matters?

- Furthermore, what role do public firms play? It is arguable that public enterprises are the most broadly representative of all. Unfortunately, little is known about the role of this important and rapidly expanding segment.
- Finally, how does the advent of non-traditional media (e.g. the internet) change the debate? The proliferation of news, opinion, and information outlets available on the internet is giving voice to an ever increasing range of viewpoints. This suggests a novel and low cost method of ensuring that more voices have the chance to be heard: subsidizing broadband access. The democratic nature of information diffusion via the internet is limited only by consumer access: not everyone can cheaply connect. However, this problem is relatively inexpensive to remedy, with little (if any) downside.

# 2 Data on Minority and Female Ownership Patterns

The most complete data source currently available for analyzing the status of female and minority owners in the United States is the 2002 Survey of Business Owners (SBO), which is part of the 2002 Economic Census. The SBO is a stratified sample of businesses with receipts of \$1000 or more, compiled from the universe of firms tracked by the Census and Internal Revenue Service. The 2002 survey contains information on over 5.5 million non-farm businesses with paid employees. Industries are classified according to the North American Industry Classification System (NAICS). The data are tabulated by NAICS, processed by the Census bureau, and made available in a variety of forms. The data we are using include information at the 6 digit NAICS level on business from 18 two digit NAICS lines and provide detailed information on the race and gender of business owners. Only firms with paid employees are included. Business ownership is defined as having 51 percent or more of the stock or equity in the business and is categorized by:

- Gender: Male, Female or equally Male/Female Owned
- Ethnicity: Hispanic or Latino or non Hispanic or Latino
- Race: White, Black or African American, American Indian or Alaska Native, Asian,
   Native Hawaiian or Other Pacific Islander

Note that business may be tabulated in more than one group, either because the majority or sole owner reported more than one race or because a majority combination of owners reported more than one race.

#### 2.1 Analysis of the Census data

Table 1 presents a breakdown of firm ownership by gender. Firms are categorized as female owned, male owned or equally male\female owned. The percentages reported are relative to the universe of privately held firms, in order to minimize distortions created by differential rates of public ownership. For comparison purposes (and to illustrate this point), the raw data are also presented in the appendix in Table 7. It is immediately clear that the share of publicly held firms varies significantly across these industries, causing the numbers in Table 7 to reflect both this difference and the difference in the shares by gender. Since we are primarily interested in the latter, we focus on the information in Table 1 and leave the compliment information for the appendix. We should note that the share of publicly traded firms is an interesting area for future analysis, but emphasize that internal ownership in public firms is hard to track. There are individuals who hold significant shares in these firms, but the majority of the equity is held by a large group of people whose identity and influence on the firm may be quite hard to precisely allocate.

Since the population of the United States is approximately 51.1 percent female, it is immediately obvious that women are under-represented in every line of business. Across all non-farm, privately held businesses with paid employees, women own only 17.74% of firms, while men own 68.41%. Female ownership is strongest in the education sector and weakest in utilities. Among the three lines of media enterprises under analysis here (Radio Station, TV Stations, and Newspaper Publishers), women own 14.01%, 13.68%, and 20.56% respectively, numbers which are broadly in line with the overall universe of businesses. Therefore, whatever is driving these asymmetries is clearly systematic, not specific to these particular industries. As noted above, the numbers reported in Table 7 in the appendix show a much higher degree of variation, due to the differences in the percent of publicly owned firms. However, this does not change the broad conclusion that the three media industries are basically in line with the broad universe of firms with regard to the status of female ownership. Women are under-represented across the board.

Table 1: Ownership by Gender

NAICS	Name	% Female	% Male	% Equal
22	Utilities	10.58	75.72	13.70
23	Construction	7.32	79.84	12.84
31-33	Manufacturing	13.78	72.73	13.49
42	Wholesale Trade	12.88	73.78	13.34
44-45	Retail Trade	20.27	61.18	18.55
48-49	Transportation & Warehousing	12.34	70.22	17.44
51	Information	16.12	70.78	13.10
515112	Radio Stations	14.01	76.88	9.11
515120	TV Stations	13.67	79.18	7.15
511110	Newspaper Publishers	20.56	61.72	17.72
52	Finance and Insurance	15.07	76.08	8.85
53	Real Estate, Rental, Leasing	20.60	63.67	15.73
54	Professional, Scientific, Technical Services	19.09	71.82	9.09
55	Management of Companies & Enterprises			
	Administrative & Support & Waste	12.09	79.80	8.10
56	Management & Remediation Service	20.86	64.73	14.41
61	Educational Services	39.47	41.85	18.68
62	Health Care & Social Assistance	23.78	68.57	7.65
71	Arts, Entertainment & Recreation	21.21	62.74	16.05
72	Accommodation & Food Services	21.10	58.12	20.78
81	Other Services (except public)	22.70	61.35	15.95
All Non-	Farm Businesses	17.74	68.41	13.85

Table 2: Ownership by Race and Ethnicity

			I	Percent		
NAICS	Name	Hispanic	White	Black	AmInd	Asian
22	Utilities	0.85	96.79	1.13	0.89	1.44
23	Construction	3.57	97.15	1.24	0.68	1.04
31-33	Manufacturing	3.57	94.57	0.72	0.48	4.09
42	Wholesale Trade	3.84	91.40	0.60	0.25	7.57
44-45	Retail Trade	3.60	89.55	1.22	0.42	8.58
48-49	Transportation & Warehousing	5.60	94.07	2.99	0.54	2.10
51	Information	2.82	93.04	2.07	0.40	4.33
515112	Radio Stations	3.71	93.29	4.35	0.17	2.27
515120	TV Stations	6.04	89.11	4.89	0.00	6.03
511110	Newspaper Publishers	1.58	93.50	2.44	1.00	3.24
52	Finance and Insurance	3.03	95.39	1.70	0.38	2.54
53	Real Estate, Rental, Leasing	2.40	94.90	1.04	0.26	3.56
54	Prof., Scientific, Tech. Svcs.	2.77	93.57	1.57	0.47	4.29
55	Mgmt. of Companies					
56	Admin. Support & Waste	1.36	95.74	1.03	0.38	2.76
	Mgmt. & Remediation Svcs.	5.50	93.27	3.38	0.63	2.61
61	Educational Services	3.55	90.60	3.10	0.65	5.25
62	Health Care & Social Assist.	4.14	85.88	4.14	0.44	9.20
71	Arts, Entertainment, Recreation	2.13	95.13	2.33	0.34	2.069
81	Other Services (except public)	5.11	89.07	2.28	0.45	8.16
All Non-	Farm Businesses	3.85	91.32	1.82	0.47	6.21

Focusing next on the status of minorities, Table 2 provides the breakdown of ownership by race and ethnicity for privately owned firms across all non-farm businesses with paid employees. The reader should note that respondents could report more than one race, so the percentages do not necessarily aggregate to 100.<sup>1</sup> In the appendix, we again provide the raw ownership breakdown for both private and public firms together (Table 8). Again, we focus on privately held firms in order to isolate the demographic component. Focusing in on the information categories that are the focus of this study reveals that ownership is significantly concentrated among non-minorities (whites) but, as with gender, the patterns are not out of line with the economy at large. Again, whatever is driving these asymmetries is not unique to firms in these three lines of business, it is an economy-wide phenomenon.

<sup>&</sup>lt;sup>1</sup>About 2% of the overall census respondents self-identify as belonging to more than one race

Table 3: Demographics of the U.S. Population

Race	Hispanic	White	Black	Am. Ind	Asian
% in population	13.40	69.40	12.68	1.22	4.41

For comparison, Table 3 provides the breakdown by race of the general population in 2002, using data from the U.S. Census website. Note again that the numbers do not sum to 100%, since individuals are free to self-identify as belonging to more than one race. It is clear that business ownership is highly skewed towards non-minorities (white, non-Hispanics) only Asians own a share of the economy commensurate with their overall share of the population. While Blacks make up 12.68% of the overall population, they own only 1.82% of non-farm businesses. In the case of the three media industries analyzed here, Blacks own a slightly larger share of these businesses than they own of the economy as a whole, but still much less than their share of the population. Asians own a more than proportionate share of TV stations, but are under-represented in Radio and Newspapers, while American Indians own a close to proportionate share of Newspapers, but are under-represented in Radio and Television. Hispanics are under-represented across the board but, as with every other category, not more so in these industries than in the population of firms at large. As is the case with female ownership, the data reveal that these three industries are not out of line with the economy as a whole. Under-representation of females and minorities is an economy-wide phenomenon, it is not industry specific.

## 2.2 Sources of Asymmetries

Since the observed ownership asymmetries are economy-wide, they are undoubtedly linked to broad systematic factors. While some of this pattern may well be due to discrimination, the most direct explanation lies in unequal access to capital (which may itself be rooted in discrimination, or other long standing disadvantages). Why is access to capital important? Many businesses require individuals to sink substantial financial investments upon entry. This is likely to be especially true in media enterprises, given the relatively high levels of firm concentration. Table 9 in the appendix shows the shares of the top 4, top 8, top 20, and top 50 firms in full set of industries for which we have data. The concentration ratios in the information category and specifically in Radio and TV broadcasting are very high.

Table 4: Family Net Worth (2004 dollars, thousands)

	1989		199	)2	1995		
Ethnic group	Median	Mean	Median	Mean	Median	Mean	
White non-Hispanic	104.2	333.4	91.9	292.9	94.3	308.7	
Nonwhite or Hispanic	9.8	92.1	15.8	102.0	19.5	94.9	
ratio	10.6	3.6	5.8	2.9	4.8	3.3	

	1998		200	)1	2004		
	Median	Mean	Median	Mean	Median	Mean	
White non-Hispanic	111.0	391.1	130.2	520.2	140.7	561.8	
Nonwhite or Hispanic	19.3	116.5	19.1	125.1	24.8	153.1	
ratio	5.8	3.4	6.8	4.2	5.7	3.7	

This is indicative of high barriers to entry, most likely in the form of capital requirements. For example, even in Radio, where the capital requirements are arguably the lowest, basic startup costs for a low power FM station are on the order of \$160,000 for equipment alone.<sup>2</sup> High power radio and TV are orders of magnitude more expensive. Thus, a key determinant of media ownership is simply being able to afford it. This ability varies sharply by race.

So how much does access to capital vary by race? To answer this question we turned to the Survey of Consumer Finances, which is conducted every three years by researchers at the U.S. Federal Reserve (Fed). The Fed surveys about 4,500 U.S. households, asking families about their personal finances, use of financial institutions, income, pensions, and additional demographic information. Since the industries we are interested in involve large fixed investments, the question of access to capital is paramount. The means and medians by ethnic group are reported in Table 4.

Unfortunately, the racial breakdown used by the Fed is not as fine as in the SBO, but it is still informative. In particular, we see that the average ratio of mean net worth between whites and nonwhites during the period reported in Table 4 was 3.5 in 2004, while the average ratio of median net worth between whites and nonwhites was about 6.6. These numbers suggest that, in terms of access to personal capital, there is a great deal of inequality across these groups.<sup>3</sup> Coupled with the differences in population, we can start

<sup>&</sup>lt;sup>2</sup>For information on the basic equipment necessary to start a radio station, along with estimated costs, see http://www.christianradio.com/sterling/enhanced.html.

<sup>&</sup>lt;sup>3</sup>Of course, drawing on personal wealth is not the only way to finance a large project, individuals can

Table 5: Ownership Patterns (White vs. non-White)

	Radio	TV	Newspaper	All
	Stations	Stations	Publishers	Non-Farm
White	89.9	84	91.9	88.1
Nonwhite or Hispanic	10.1	16	8.1	11.9
Ratio	8.9	5.25	11.3	7.4

to understand why there is such skewness in ownership. The ratio of whites to non-whites in the population at large is about 2.2 to 1 while the ratio of wealth is between 3.6 and 5.7 to 1, yielding an overall ratio of between 7.7 and 14.5 to 1. This means that non-minorities have access to between 8 to 14 times as much personal capital as minorities. Based on this alone, we would expect ownership rates to follow a similar pattern, which they in fact do. Table 5 shows the ratios of white to non-white or Hispanic owners for the three industries under analysis here, as well as the overall non-farm economy as a whole. We find the ratios are very much in line with the relative ratios of wealth, suggesting that access to capital is indeed the primary factor driving the asymmetries of ownership among the races. This does not in any way excuse this large degree of inequality, it merely identifies its cause: non-minorities control a much larger fraction of aggregate wealth than minorities, allowing them to own a much larger fraction of businesses. Assuming that aggregate wealth is a strong indicator of the ability to finance large commercial ventures, in order to change ownership patterns we need to either change the aggregate distribution of wealth or otherwise increase access to capital markets.

Unfortunately we do not have data on the difference in access to capital by gender. However, in an analysis of a more disaggregated tabulation of the SBO, Lowrey (2006) finds that "1) business ownership is related positively to income and negatively to poverty; 2) these correlations are stronger for women-owned firms than for all firms". So access to wealth may also explain the disparities we observe across genders. We should emphasize that we do not have access to the type of data that would allow us to move much beyond speculation. There have been large secular shifts in female workforce participation and

also turn to capital markets (e.g. small business loans or venture capital). However, several authors have argued that minorities are significantly disadvantaged when it comes to obtaining such funding (Bradford and Bates, 2004).

Table 6: Changes in the Number of Minority Owned Firms - All non-farm businesses

		Percentage Change								
	1982-1987	1987-1992	1992-1997	1997-2002						
All	14	26	21	10						
White	11	22	15	6						
Black	38	46	33	45						
Hispanic	73	76	36	31						
Native American	46	310	93	2						
Asian	72	46	48	24						

educational status that are likely to have profound impacts on these ratios over time. This is clearly an interesting area for future analysis.

We hasten to note that a more complete analysis of these patterns is clearly warranted as much is missing from this simple analysis. For example, there are probably dramatic changes occurring in both groups over time, as more women enter the workforce and minorities accrue a larger proportion of aggregate wealth. Indeed, Lowrey (2006a&b) finds promising trends in ownership percentages for both females and minorities across the 1997 and 2002 Economic Censuses. Table 6 shows the percentage change in the number of minority owned businesses over time as reported by Lowrey. While growth of white owned firms has lagged behind total growth, minority ownership has steadily ticked upward. The number of female owned firms grew by 19.8% from 1997 to 2002. These are promising trends.

Unfortunately, all sources of available data only include information about majority stakeholders. This is very limiting. A more appropriate metric would include shares based on all of the claimants in the firm. To see why this is important, imagine a world made up of firms that were all owned in exact proportion to the shares of racial groups in the overall population. The data collected in the SBO would reveal that whites own 100 percent of the businesses, since this survey only records the majority owner(s) of each firm. While the SBO is not in fact subject to such an extreme bias (many firms are in fact sole proprietorships), it is likely to overstate the share of firms owned by the largest racial groups and understate minority ownership. Another limitation of available data is the lack of information regarding firm sales. Everything we have reported here is based on firm counts, but some firms are much larger than others (for example, in the economy at large, public firms account for just

2% of the total number of non-farm businesses, but over 60% of sales (Lowrey, 2006)). If, for example, black owned businesses are smaller on average than white owned businesses, the picture presented above would be incomplete.

However, the FCC is in a unique position to collect a complete census of the relevant firms, along with their revenues. Currently, all of these firms are required to file FCC Form 323 upon change of ownership. While the FCC did provide us with information gathered from this process, it was too incomplete to be utilized for any serious empirical analysis. The problems with these data, which include missing variables, incomplete reporting, and poor data management are addressed at length both in the appendix and in independent research (Byerly (2006), Turner and Cooper (2006)). In addition, these data do not constitute a random sample, as it only includes those firms whose ownership in fact changed. This severely limits its usefulness to researchers, even if it were to be managed carefully. We strongly urge the FCC to commission a full census of these key media industries, with the goal of providing comprehensive data on the full ownership structure of every firm. Moreover, careful thought should be given as to how firms should be classified. Under the current system, firms only qualify as minority or female owned if a single person owns at least 50% of the firm. It is not obvious that this is the most appropriate choice. For example, it would be useful to know how much of the total industry (i.e. all stakeholders in all firms) is owned by minorities or females, and how large, in terms of sales, each of these firms is. This would provide a much more accurate picture of the diversity (or lack thereof) of current ownership. The current data structure does not allow such a measure to be constructed. The identity and share of publicly traded firms should also be tracked over time.

# 3 Rethinking the Problem

In closing, we think it is important for the FCC to step back and consider the issue of minority and female ownership from a broader perspective. What exactly are the benefits of having proactive policies to increase minority and female ownership of media enterprises? Most of the existing literature on minority and female ownership patterns appears to take it for granted that there are substantial benefits to such policies. While it is certainly true that an even distribution of ownership seems "fair" and that it might promote a more

balanced airing of voices, it is not at all clear that ownership restrictions are the best way to achieve these goals. Since such restrictions certainly have costs (because they directly impact competition), it is important to quantify exactly what the benefits associated with restricting ownership patterns might be. While tackling this issue is beyond the scope of this report, it seems like an important first step. Why might these benefits not be so obvious? For one thing, recent research suggests that media content is driven much more by demand considerations (i.e. consumer preferences) than supply factors (i.e. owner preferences). For example, in a careful study of the newspaper industry, Gentzkow and Shapiro (2006) find that newspapers appear to tailor their perspective to match what their subscribers demand, rather than the particular leanings of ownership. In other words, "conservative" newspapers offer a "conservative" viewpoint and "liberal" newspapers a "liberal" viewpoint because that is what their subscribers prefer, not to further the agenda of a specific owner. Moreover, they find that the observed degree of "media bias" appears to be very close to the profit maximizing choice. In particular, they construct a model of newspaper demand which allows consumers to choose a newspaper that accords most closely with their own point of view or "taste". After constructing estimates of these tastes, they then solve for the points on the "viewpoint spectrum" that maximize profit and find that the actual (observed) points are very close to what their model predicts. In other words, the choice of viewpoint is driven much more by a desire to maximize profits than to promote a specific agenda. Since most every owner has the goal of maximizing profits, it is unclear what impact ownership restrictions would in fact have. Would female or minority owners deviate from the profit maximizing choice and offer an alternative viewpoint? The Gentzkow and Shapiro results suggest not.

Second, it is not clear exactly what the ownership goals should be. Current policy analysis (and data) focuses exclusively on majority ownership (e.g. the percentage of firms where minorities or women have a controlling interest). This seems like an arbitrary choice. Does an owner with a minority stake in the firm not have important influence? If so, shouldn't we be tracking and reporting the full breakdown of stakeholders?

Third, there has been little to no discussion of public versus privately held companies. Publicly held corporations are arguably the fairest organizational structure of all, since they must answer to a diverse set of shareholders. Of course, some individuals will have more influence then others (for example, Turner and Cooper (2006) find that the vast majority of radio stations with "no controlling interest" have a white, non-hispanic male CEO or president), but it is again difficult to make specific recommendations without taking a more structured and systematic approach.

Finally, how has the development of non-traditional media changed the debate? More and more people are getting news and information from non-traditional sources, the most important of which is the internet. There are news sites, information sites, opinion sites, and a wide array of "blogs" catering to almost every segment of the population. Consequently, an ever increasing number of people and perspectives are gaining an active voice, along with an extremely efficient means for connecting with an ever expanding audience. Moreover, the entry costs for internet media sites are extremely low (essentially a computer and a broadband connection), meaning that people who are interested in serving even the smallest segments of the population can gain easy access to a broad platform. Whether they will in fact be heard depends on whether people choose to listen. As such, the internet effectively eliminates the capital requirements that limit entry into traditional media. The democratic structure of the internet is limited only by consumer access: while it is extremely cheap for suppliers of information to gain access to this powerful venue, not every consumer has access to broadband internet. If the government is interested in maximizing the number of voices that get heard (or at least have the opportunity to get heard), subsidizing broadband access is a relatively cheap and effective method of doing so that has little (if any) downside.

#### References

Bradford, W. and T. Bates (2004) "Venture Capital Investment in Minority Business" Working Paper: University of Washington.

Byerly, C.M. (2006) "Questioning Media Access: Analysis of FCC Women and Minority Ownership Data", in *Does Bigger Media Equal Better Media* (Report), Social Science Research Council and Benton Foundation.

Gentzkow, M. and J.M. Shapiro (2006) "Media Bias and Reputation", *Journal of Political Economy*, 114(2), pp. 280-316.

Gentzkow, M. and J.M. Shapiro (2006) "What Drives Media Slant? Evidence from U.S. Daily Newspapers", Working paper: University of Chicago.

Turner, S.D. and M. Cooper (2006) "Out of the Picture: Minority and Female TV Station Ownership in the United States: Current Status, Comparative Statistical Analysis and the Effects of FCC Policy and Media Consolidation" Free Press.

Lowrey, Y. (2007) "Minorities in Business: A Demographic Review of Minority Business Ownership", Office of Advocacy: U.S. Small Business Administration.

Lowrey, Y. (2006) "Women in Business: A Demographic Review of Women's Business Ownership", Office of Advocacy: U.S. Small Business Administration.

# A Appendix: Additional Tables and Sources of information

#### A.1 Additional Census data

We include in the appendix additional information on ownership and on market composition for the full set of non-farm businesses in the United States. This information is compiled from the Census' Economic Survey for 2002. First, we report the share of firm ownership by gender, along with the total number of firms in Table 7. Firms are categorized as female owned, male owned, equally male\female owned, or publicly held (or not classifiable by gender). Second, we report firm ownership by race for the same set of firms in Table 8. The reader should note that the columns in Table 8 do not necessarily sum to hundred percent, since respondents could report more than one race (about 2% of the overall census respondents self-identify as belonging to more than one race). Also, the reader should be aware that the numbers in Tables 7 and Table 8 are somewhat difficult to interpret, since the fraction of publicly held companies varies widely from one industry to the next. The Economic Survey also contains information about concentration ratios for various industries. We report these ratios in Table 9.

## A.2 The NABOB Data

The National Association of Black Owned Broadcasters (NABOB) collects information on Radio (both AM and FM) and TV stations owned by African Americans. We were given historical data for the years 1986, 1991, 1996, 2001 and 2006. The counts for the radio and TV stations are summarized in Table 10. The counts for the earliest period 1986 are clearly incomplete and we chose to omit them. It is reasonable to assume that the figures in this table are subjected to changes in reporting and coverage.

The number of states in which there has been either a radio or a TV station owned by an African American is 37. From 1991 to 2006 the number of FM radio stations reported to be owned by African Americans has almost doubled, increasing from 74 to 138. The total number of AM radio stations has fluctuated during that period and had no clear trend. By in large, both the rise in FM stations and the fluctuations in AM station happened mostly in a narrow set of states (GA, MS, OH, NC and TX). A closer look at the data reveals that,

Table 7: Ownership by Gender (Including Public Firms)

NAICS	Name	# firms	Female	Male	Equal	Public
22	Utilities	6,223	4.85	34.72	6.28	54.15
23	Construction	729,842	7.08	77.24	12.42	3.26
31-33	Manufacturing	$310,\!821$	12.85	67.82	12.58	6.75
42	Wholesale Trade	347,319	12.02	68.87	12.45	6.66
44-45	Retail Trade	745,872	19.53	58.95	17.87	3.65
48-49	Transportation & Warehousing	167,865	11.65	66.30	16.46	5.58
51	Information	76,443	14.18	62.26	11.52	12.04
515112	Radio Stations	3784	11.54	63.33	7.50	17.63
515120	TV Stations	1001	8.28	47.97	4.33	39.42
511110	Newspaper Publishers	5935	19.28	57.88	16.62	6.22
52	Finance and Insurance	241,120	13.48	68.04	7.91	10.57
53	Real Estate, Rental, Leasing	266,161	18.75	57.93	14.31	9.01
54	Prof., Scientific, Tech. Svcs.	727,893	18.32	68.91	8.72	4.04
55	Mgmt. of Companies	28,351	7.40	48.84	4.96	38.80
56	Admin. Support, Waste					
	Mgmt., Remediation Service	$305,\!462$	19.82	61.50	13.69	4.99
61	Educational Services	$65,\!251$	24.35	25.82	11.53	38.30
62	Health Care & Social Assist.	564,299	20.57	59.33	6.62	13.48
71	Arts, Entertainment, Recreation	103,824	16.20	47.91	12.26	23.64
72	Accommodation & Food Svcs.	434,441	20.05	55.24	19.75	4.96
81	Other Services (except public)	392,656	21.85	59.04	15.35	3.76
All Non-	Farm Businesses	$5,\!524,\!563$	16.50	63.64	12.89	6.97

Table 8: Ownership by Race (Including Public Firms)

				Percent		
NAICS	Name	Hispanic	White	Black	AmInd	Asian
22	Utilities	0.39	44.38	0.52	0.41	0.66
23	Construction	3.45	93.98	1.20	0.66	1.01
31-33	Manufacturing	3.33	88.19	0.67	0.45	3.81
42	Wholesale Trade	3.58	85.31	0.56	0.23	7.07
44-45	Retail Trade	3.47	86.28	1.18	0.40	8.27
48-49	Transportation & Warehousing	5.29	88.82	2.82	0.51	1.98
51	Information	2.48	81.84	1.82	0.35	3.81
515112	Radio Stations	3.06	76.84	3.58	0.14	1.87
515120	TV Stations	3.66	53.98	2.96	0.00	3.65
511110	Newspaper Publishers	1.48	87.68	2.29	0.94	3.04
52	Finance and Insurance	2.71	85.31	1.52	0.34	2.27
53	Real Estate, Rental, Leasing	2.18	86.35	0.95	0.24	3.24
54	Prof., Scientific, Tech. Svcs.	2.66	89.79	1.51	0.45	4.12
55	Mgmt. of Companies	0.83	58.59	0.63	0.23	1.69
56	Admin. Support, Waste					
	Mgmt., Remediation Svc.	5.23	88.62	3.21	0.60	2.48
61	Educational Services	2.19	55.90	1.91	0.40	3.24
62	Health Care & Social Assist.	3.58	74.30	3.58	0.38	7.96
71	Arts, Entertainment, Recreation	1.63	72.64	1.78	0.26	1.58
81	Other Services (except public)	4.92	85.66	2.19	0.43	7.85
All Non-	Farm Businesses	3.58	84.96	1.69	0.44	5.78

Table 9: Concentration Ratios by Industry

NAICS	Name	C4	C8	C20	C50
22	Utilities	46.67	61.78	78.47	89.73
42	Wholesale Trade	26.34	35.81	47.89	59.15
44	Retail Trade I	27.67	33.59	39.61	45.57
45	Retail Trade II	36.51	44.14	50.38	56.59
48	Transportation & Warehousing I	34.34	44.54	57.84	69.32
49	Transportation & Warehousing II	33.35	40.97	52.25	63.82
51	Information	46.09	57.86	70.84	80.43
515112	Radio Stations	47.0	55.5	67.9	75.6
515120	TV Stations	50.2	60.9	76.9	87.6
511110	Newspaper Publishers	31.9	44.1	61.1	77.5
52	Finance and Insurance	37.34	48.09	61.85	72.94
53	Real Estate, Rental, Leasing	32.56	38.62	45.52	52.96
54	Prof., Scientific, Tech. Svcs.	17.62	22.84	30.95	39.35
56	Mgmt. & Remediation Svc.	26.77	33.38	42.23	51.78
61	Educational Services	17.14	22.77	32.29	43.55
62	Health Care & Social Assist.	14.38	18.58	23.12	31.58
71	Arts, Entertainment, Recreation	20.80	27.84	38.60	51.78
81	Other Services (except public)	19.38	23.10	28.39	35.51
All Non-	Farm, non-manuf. Businesses	27.57	34.97	44.29	53.57

in these states, the stations entering and exiting from the market are of religious content and are owned by local clergy. The number of TV stations reported to be owned by African Americans has remained just above 20, apart from 1996 where 34 TV stations have been reported to be owned by African Americans. We have found no explanation for this outlier.

#### A.3 The FCC Minority and Female Ownership Data

The FCC provided us with two additional datasets pertaining to minority and female ownership. The first was a spreadsheet containing every firm that submitted a 323 Form, which is required whenever licenses change hands. This data was available for 2002-2005 for Radio and Television, and for 2005 for Newspapers. These datasets appear to be relatively complete, containing information on various operational and location characteristics of each of the firms, along with the name of the ultimate parent company. However, these datasets do not contain any information on race or gender. The race and gender information was provided in a second set of spreadsheets, which simply listed the firms that were female owned and the firms that were minority owned. In the case of minority ownership, the specific race of the owner (or group of owners) was only identified about two-thirds of the time. Moreover, many high profile minority-owned enterprises (e.g. Granite Broadcasting, Radio One) are not recorded here at all. The myriad problems associated with this data have been carefully documented by both Byerly (2006) and Turner and Cooper (2006). Unfortunately, the FCC does not appear to have done anything to correct the data collection problems these authors identified. The data are summarized in Table 11.

The data provided by the FCC are clearly incomplete, resulting in relatively low percents of minority and female ownership compared with the SBO dataset. Moreover, within the ethnic groups, the classification to specific groups is not standard and is inconsistent in many cases. Therefore, we chose to present minority ownership as one category without breaking it to sub-categories. We believe that, in its current state, this data cannot be used for any serious analysis. We recommend that the FCC take steps to ensure that a complete census of media firms is carefully assembled so that ownership patterns can be accurately reported and tracked over time.

Table 10: Radio and TV Stations Owned by African Americans)

		10: Ra 2006	dio an		2001	115 O W	lica b	$\frac{y}{1996}$	Jan 11	merica 	$\frac{1137}{1991}$	
STATE	AM	FM	TV	AM	FM	TV	AM	FM	TV	AM	FM	TV
AL	6	2	0	6	2	0	8	2	0	8	3	0
AR	2	3	0	1	$\overline{2}$	0	2	$\overline{4}$	0	1	3	0
CA	$\frac{1}{2}$	5	2	3	6	2	7	8	3	5	7	1
CO	0	0	1	1	0	$\overline{1}$	1	1	1	0	0	0
CT	0	0	0	1	0	0	1	0	0	1	0	0
DC	$\frac{1}{2}$	3	1	$\frac{1}{2}$	3	1	1	2	1	3	3	1
$\operatorname{FL}$	6	6	1	7	1	1	5	0	1	5	1	2
GA	7	14	0	4	4	0	9	6	2	8	6	1
ID	0	0	1	0	0	0	0	0	0	0	0	0
IL	3	0	2	4	0	2	6	3	2	4	1	2
IN	1	4	2	0	2	1	2	2	1	2	1	1
IA	0	1	0	0	1	0	0	1	0	0	1	0
KS	0	0	1	0	0	0	1	2	0	0	1	0
KY	1	5	0	1	8	1	1	0	0	1	1	0
LA	2	8	0	4	6	0	3	3	1	4	2	2
ME	0	0	0	0	0	0	0	0	1	0	0	1
MD	2	2	0	2	2	0	4	3	1	1	1	0
MA	1	2	0	1	2	0	1	1	0	1	0	0
MI	2	5	2	3	6	2	4	8	3	4	6	1
MN	0	1	1	0	1	1	0	0	1	0	0	1
MS	6	12	1	6	9	1	6	8	3	4	5	2
MO	1	3	1	2	2	1	5	2	1	5	2	1
NE	0	0	0	0	0	0	0	0	0	0	0	0
NJ	3	3	1	0	2	0	3	1	0	3	1	0
NY	3	2	2	3	2	3	4	3	2	4	4	1
NC	6	6	0	9	6	0	11	3	1	12	3	0
ОН	13	15	1	7	12	0	5	4	0	4	4	0
OR	0	0	0	0	1	0	0	0	1	0	0	1
OK	1	1	0	0	0	0	0	0	0	0	0	0
PA	4	4	0	4	3	0	8	2	1	5	3	0
SC	6	13	1	6	12	0	6	2	1	6	3	0
TN	2	1	0	5	1	0	6	6	0	4	4	0
TX	14	11	0	7	7	2	5	6	2	3	4	2
UT	0	0	0	0	0	0	1	2	0	0	0	0
VA	7	4	0	3	6	0	9	3	2	10	3	2
WA	0	0	0	0	0	0	1	1	0	1	0	0
WI	2	2	1	2	2	1	3	2	2	2	1	2
Total	105	138	22	94	111	20	129	91	34	111	74	24

Table 11: Ownership by Race and Gender (FCC Data)

Year	Platform	Number of	Female	Minority	% Female	% Minority
		stations	owned	owned	owned	owned
2002	Radio	13,662	407	377	2.98	2.76
	TV	1,739	27	20	1.55	1.15
2003	Radio	13,696	382	391	2.79	2.85
	TV	1,749	28	16	1.60	0.91
2004	Radio	13,696	393	372	2.87	2.72
	TV	1,758	27	17	1.54	0.97
2005	Radio	14,015	384	379	2.74	2.70
	TV	1,778	27	17	1.52	0.96